

DP-300T00 - Administering Relational Databases on Microsoft Azure

Class Length: 4 Days

Overview

This course provides students with the knowledge and skills to administer a SQL Server database infrastructure for cloud, on-premises and hybrid relational databases and who work with the Microsoft PaaS relational database offerings. Additionally, it will be of use to individuals who develop applications that deliver content from SQL-based relational databases.

Prerequisite Comments

In addition to their professional experience, students who take this training should have technical knowledge equivalent to the following courses:
Azure Fundamentals
Azure Data Fundamentals

Target Audience

The audience for this course is data professionals managing data and databases who want to learn about administering the data platform technologies that are available on Microsoft Azure. This course is also valuable for data architects and application developers who need to understand what technologies are available for the data platform with Azure and how to work with those technologies through applications.

Course Objectives

After completing this course, students will be able to:
Plan, deploy and configure Azure SQL offerings
Monitor database performance and tune a database and queries for optimum performance
Plan and configure a High Availability Solution

Course Outline

1 - The Role of the Azure Database Administrator

Azure Data Platform Roles
Azure Database Platforms and Options
SQL Server Compatibility Levels
Azure Preview Features

2 - Plan and Implement Data Platform Resources

Deploying SQL Server using IaaS
Deploying SQL Server using PaaS
Deploying Open Source Database Solutions on Azure

3 - Implement a Secure Environment

- Configure Database Authentication
- Configure Database Authorization
- Implement Security for Data at Rest
- Implement Security for Data in Transit
- Implement Compliance Controls for Sensitive Data

4 - Monitor and Optimize Operational Resources

- Baselines and Performance Monitoring
- Major Causes of Performance Issues
- Configuring Resources for Optimal Performance
- User Database Configuration
- Performance-related Maintenance Tasks

5 - Optimize Query Performance

- Understanding SQL Server Query Plans
- Explore Performance-based Database Design
- Evaluate Performance Improvements

6 - Automation of Tasks

- Setting up Automatic Deployment
- Defining Scheduled Tasks
- Configuring Extended Events
- Managing Azure PaaS resources Using Automated Methods

7 - Plan and Implement a High Availability and Disaster Recovery Environment

- High Availability and Disaster Recovery Strategies
- IaaS Platform and Database Tools for HADR
- PaaS Platform and Database Tools for HADR
- Database Backup and Recovery
